

reflection of light between a total reflection window and an exit window; 5

a discharging electrode for exciting the laser gas through electrical discharge [electric discharging], so that laser light is outputted from said chamber; -

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a blower [circulating means] for circulating the laser gas within said chamber, so that the laser gas passing an electrical [electric] discharging region of said discharging electrode is circulated in said chamber and is returned to the electrical [said electric] discharging region of said discharging electrode; and

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control means for changing revolutions of said 15 blower between (i) [controlling said circulating means so that said circulating means provides different gas] 7 circulation capacities, being different for] an in-operation state in which the laser gas is excited by the electrical discharge [electric discharging], from said discharging 20 electrode and the laser light is being outputted, and (ii) [for] a stand-by state in which no laser light is emitted, 23 but an output of the laser light is being prepared [which differs from said in-operation state but in which laser light 24 can be outputted].

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2. (Amended) A gas laser device according to Claim 1, wherein said control means stops the revolution of said blower [is operable to stop the gas circulation through said circulating means] when said gas laser device is in the [said] stand-by state.

4. (Amended) A gas laser device according to Claim 2 [3], wherein said blower [blowing machine] has a blowing blade rotatably supported within said chamber.

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5. (Amended) A gas laser device according to Claim 1, wherein said laser device comprises [one of] a noble gas halide excimer laser [and a F₂ laser].

6. (Amended) A gas laser device according to Claim 5, wherein said noble gas halide excimer laser comprises an [one of] XeCl excimer laser[, KrF excimer laser, and ArF excimer laser].

7. (Amended) A gas laser device according to Claim 1, further comprising an exposure apparatus for

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exposing a substrate to [with] the laser light supplied from
said gas laser device.

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8. (Amended) A gas laser device according to
Claim 7, wherein said control means stops the revolution of
said blower [is operable to stop the gas circulation through
said circulating means] when said gas laser device is in the
[said] stand-by state.

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10. (Amended) A gas laser device according to
Claim 8, wherein said blower [blowing machine] has a blowing
blade rotatably supported within said chamber.

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11. (Amended) A gas laser device according to
Claim 8, wherein said laser device comprises [one of] a noble
gas halide excimer laser [and a F₂ laser].

12. (Amended) A gas laser device according to
Claim 11, wherein said noble gas halide excimer laser
comprises an [one of] XeCl excimer laser[, KrF excimer laser,
and ArF excimer laser].

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13. (Amended) An exposure apparatus, comprising:
a laser light source having (i) a chamber for
sealingly storing a laser gas therein and for producing light
amplification through reflection of light between a total
reflection mirror and an exit window, (ii) a discharging
electrode for exciting the laser gas through electrical
discharge [electric discharging] so that laser light is
outputted from said chamber, and (iii) a blower [circulating
means] for circulating the laser gas within said chamber so
that the laser gas passing an electrical [electric] ¹⁰
discharging region of said discharging electrode is
circulated in said chamber and is returned to the electrical
[said electric] discharging region of said discharging
electrode;

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a main assembly for exposing a substrate to [with] ¹⁵
the laser light from said laser light source; and
control means for changing revolutions of said
blower between (i) [controlling said circulating means so
that said circulating means provides different gas
circulation capacities, being different for] an exposure-²⁰
operation state of said exposure apparatus in which exposure
of the substrate to [with] the laser light from said laser

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light source can be performed through said main assembly, and
(ii) [for] a non-exposure-operation state of said exposure
apparatus.

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14. (Amended) An apparatus according to Claim 13,
wherein said control means increases the revolution speed of
said blower [is operable to increase the gas circulation
capacity of said circulating means] in response to a start of
an exposure job in which the exposure operation is performed
through said main assembly.

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15. (Amended) An apparatus according to Claim 14,
wherein said control means stops the revolution of said
blower before a [is operable to hold gas circulation through
said circulating means stopped before] start of the exposure
job.

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17. (Amended) An apparatus according to Claim 15
[16], wherein said blower [blowing machine] has a blowing
blade rotatably supported within said chamber.

18. (Amended) An apparatus according to Claim 13, wherein said laser light source comprises [one of] a noble gas halide excimer laser [and a F₂ laser].

19. (Amended) An apparatus according to Claim 18, wherein said noble gas halide excimer laser comprises an [one of] XeCl excimer laser[, KrF excimer laser, and ArF excimer laser].

20. (Amended) A semiconductor device manufacturing method comprising:

sealingly storing a laser gas in a chamber, and producing light amplification through reflection of light between a total reflection window and an exit window;

exciting, using a discharging electrode, the laser gas through electrical discharge, and outputting laser light from the chamber;

circulating, using a blower, the laser gas within the chamber, so that the laser gas passing an electrical discharging region of the discharging electrode is circulated in the chamber and is returned to the electrical discharging region of the discharging electrode; and

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changing, using control means revolutions of the
blower between (i) an in-operation state in which the laser⁵
gas is excited by the electrical discharge from the
discharging electrode and the laser light is being outputted,
and (ii) a stand-by state in which no laser light is emitted,⁸
but an output of the laser light is being prepared [in which¹⁰
a pattern is lithographically transferred onto a substrate by
use of an exposure apparatus as recited in any one of Claims
7 - 19].

Please add claims 21 through 29 as follows:

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--21. A gas laser device according to Claim 1,
wherein said laser device comprises an F₂ laser.

22. A gas laser device according to Claim 5,
wherein said noble gas halide excimer laser comprises a KrF
excimer laser.

23. A gas laser device according to Claim 5,
wherein said noble gas halide excimer laser comprises an ArF
excimer laser.

24. A gas laser device according to Claim 8,
wherein said laser device comprises an F₂ laser.

25. A gas laser device according to Claim 11,
wherein said noble gas halide excimer laser comprises a KrF
excimer laser.

26. A gas laser device according to Claim 11,
wherein said noble gas halide excimer laser comprises an ArF
excimer laser.

27. An apparatus according to Claim 13, wherein
said laser light source comprises an F₂ laser.

28. An apparatus according to Claim 18, wherein
said noble gas halide excimer laser comprises a KrF excimer
laser.

29. An apparatus according to Claim 18, wherein
said noble gas halide excimer laser comprises an ArF excimer
laser.--.